

Appln. No. 10/757,859
Docket No. 14XZ126397 / GEM-0128

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No.:	10/757,859	:	Confirmation No.:	4616
Applicant:	Laurent Launay	:	Group Art Unit:	2628
Filed:	January 15, 2004	:	Examiner:	Lay, Michelle K.
Docket No.:	14XZ126397/GEM-0128	:		

For: **METHOD AND DEVICE FOR IMAGING WITH REORIENTATION OF AN OBJECT**

May 22, 2006

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

In response to the Final Action dated December 22, 2005, and the Advisory Action dated March 21, 2006, Applicant hereby requests review of the Final Rejection in the above-identified application. No amendments are being filed with this request. This request is being filed concurrently with a Notice of Appeal. This review is requested for the reason(s) stated on the attached sheet(s), which do not exceed more than five (5) pages.

This response is accompanied by a request for a two-month extension of time under 37 CFR 1.136(a).

Reasons begin on page 2.

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope, addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, at the United States Patent and Trademark Office, on the date shown below.

MaryAnn Stratton
Name

MaryAnn Stratton
Signature

5/22/06
Date

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REASONS

Regarding Independent Claims 1 and 56

The claim limitations at issue are directed to:

“...wherein the means for processing is configured to acquire *at least two points positioned in the 3D model* via the user interface, to deduce the positioning of *an axis defined by the two points in the 3D model*, and to *reorient the 3D model* such that the axis is in a predefined orientation relative to a plane of the means for display; and

wherein the means for processing is configured to *orient the 3D model in such a manner that the axis defined by the two points indicated by the user is parallel to the plane of the means for display.*” (Claim 1); and

“...positioning *at least two points in the 3D model* by means of the user interface;

causing the means for processing to deduce therefrom the position of *an axis defined by the points on the 3D model*; and

causing the means for processing to *reorient the 3D model such that the axis lies in a predefined orientation relative to and parallel with a plane of the means for display.*” (Claim 56).

Dependent claims inherit all of the limitations of the respective parent claim.

Examiner's Allegation I: The Examiner alleges under 35 U.S.C. §103(a) that the claimed invention is unpatentable over Ono et al. (U.S. Patent No. 5,588,097, hereinafter Ono). Final Action Paper No. 20051107, page 4.

Examiner's Allegation II: The Examiner alleges that “...in the case of Ono, the spherical surface is part of the 3D model.” Advisory Action Paper No. 20060315, page 2.

Examiner's Allegation III: The Examiner alleges that “...since the user is defining the two points for the axis, it is not invalid to have the user of Ono define the points P2 and P3 equal to P0. Therefore, by defining the points as such, the system of

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Ono reorients the 3D object parallel with the display." Advisory Action Paper No. 20060315, page 2.

Examiner's Allegation IV: The Examiner alleges "Furthermore, it would have been obvious to one of ordinary skill in the art to reorient the object in order to have a starting point prior to rotating the object." Advisory Action Paper No. 20060315, page 2.

Applicant respectfully disagrees that Ono teaches *each and every element of the claimed invention arranged so as to perform as the claimed invention performs*.

Applicant's paper "Amendment Under 37 CFR 1.116", dated February 22, 2006, pages 14-18.

Regarding Examiner's Allegation II:

Applicant respectfully submits that Ono teaches "*an object in three-dimensional space* to be subjected to rotation" as represented by "reference numeral 21", and "*a semitransparent spherical surface* (represented by reference numeral 22) that is displayed in the figure rotation mode so as to enclose the object 21." Column 3, lines 22-27, and Figure 2. Emphasis added.

Applicant further submits that Ono teaches that "*First, the data of the three-dimensional figure of the object 21 to be processed* which has been generated in the image generating section 2 in the image generation mode, is read out and displayed on the display screen 6 (step 31). *Then, the semitransparent spherical surface 22 is superimposed* on the figure of the object 21 (step 32)." Column 3, lines 28-35. Emphasis added. Also, Applicant submits that Ono teaches that the semitransparent spherical surface 22 is independently generated by a surface generating device 14. Column 4, lines 10-12.

Here, Applicant finds Ono to teach a 3D object 21 that is distinctly different from a semitransparent spherical surface 22. First, the 3D object 21 is generated and displayed, then the spherical surface 22 is separately generated and subsequently superimposed on the 3D object 21.

In alleging obviousness, the Examiner alleges that "...in the case of Ono, the spherical surface is part of the 3D model", which Applicant submits is entirely contrary to

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the teaching of Ono. If the 3D object 21 and spherical surface 22 were part of the same 3D model as alleged by the Examiner, then the 3D object 21 could not be generated independently of the spherical surface 22, and the spherical surface 22 could not be separately generated and subsequently superimposed on the 3D object 21, which is the intended purpose taught by Ono.

Accordingly, Applicant submits that Ono does not teach or suggest each and every element of the claimed invention *arranged so as to perform as the claimed invention performs*, and that a modification as alleged by the Examiner would *render Ono unsatisfactory for its intended purpose*.

Regarding Examiner's Allegation III:

Applicant respectfully submits that Ono teaches "When point P0 and P1 are the same point *on the spherical surface 22 (not the object 21)*, the object *rotates about the axis (O-P0)* by the *rotation angle α* by specifying P0 and then determining point P2 and P3." Column 3, lines 61-65. Applicant's Amendment Under 37 CFR 1.116, page 16.

Applicant further submits that Ono teaches "*a point P2 on the spherical surface 22... indicated by a marker as the rotation start point... another point P3 on the spherical surface 22*, so that the angle P2P1P3 (or P2POP3, where P0 and P1 are the same point) defines a rotation angle α about the axis O-P1 (or O-P0, where P0 and P1 are the same point)...". Column 5, lines 33-38. Applicant's Amendment Under 37 CFR 1.116, page 16.

Here, Applicant finds Ono to teach a rotation angle α defined by angle P2POP3, and a rotation about axis O-P0 (where P0 and P1 are the same point).

In alleging obviousness, the Examiner alleges that "...it is not invalid to have the user of Ono define the points P2 and P3 equal to P0", which Applicant submits would result in a null angle of rotation since now P2=P3=P0, thereby resulting in the angle of rotation α being zero. As such, modifying Ono as alleged by the Examiner would not only render Ono unsatisfactory for its intended purpose, but would also fail to result in the claimed invention performing as the claimed invention performs.

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Also, in alleging obviousness, the Examiner alleges that “Therefore, by defining the points as such, *the system of Ono reorients the 3D object parallel with the display.*” (Emphasis added). Here, Applicant finds no teaching in Ono to support the allegation that by defining $P2=P3=P0$ the system of Ono actually results in automatically reorienting the 3D object parallel with the display, and the Examiner has not shown with any degree of specificity where Ono does teach such an arrangement.

Accordingly, Applicant submits that Ono does not teach or suggest each and every element of the claimed invention *arranged so as to perform as the claimed invention performs*, and that a modification as alleged by the Examiner would *render Ono unsatisfactory for its intended purpose*.

Regarding Examiner's Allegation IV:

The Examiner alleges “Furthermore, it would have been obvious to one of ordinary skill in the art *to reorient* the object in order to have a starting point *prior to rotating* the object.” Emphasis added.

Here, it appears that the Examiner is alleging obviousness of the claimed invention by stating that one of ordinary skill in the art would want *to first reorient an object* in order to have a starting point *prior to further rotating the object*.

Applicant respectfully submits that the *apparent dual rotation* alleged by the Examiner is entirely contrary to the purpose of the claimed invention, which is to select two points of a 3D model (such as an aneurysm that may appear as a slight bulge on the margin of the vessel carrying it), thereby defining an axis that is *rotated once* to be parallel with the display screen for easier visualization of the aneurysm. Paragraph [0019] of Application as originally filed.

As such, Applicant submits that Ono does not teach or suggest each and every element of the claimed invention *arranged so as to perform as the claimed invention performs*.

Regarding Dependent Claims 26-28 and 30-34

The claim limitations at issue are directed to:

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“...wherein the means for processing acquires *at least three points positioned in the 3D model* by means of the user interface, *to deduce two axes therefrom* each passing through a pair of the points, and *to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.*”

In alleging obviousness, the Examiner incorporates the rationale applied to Claim 1 above, and further remarks that O-P0 defines one axis, O-P1 defines another axis, and that “Since both points, i.e. P0 and P1 are x, y coordinates, *it can be concluded* that the axis formed with these points, i.e. O-P0 and O-P1, are parallel to the display”. Final Action Paper No. 20051107, page 9, last three lines. (Emphasis added).

Applicant respectfully submits that Ono teaches that “the semitransparent spherical surface 22 having the fixed point as its center O is generated by the semitransparent spherical surface generating device 14...”. Column 4, lines 10-12.

Here, Applicant finds Ono to teach a center point O that is the center of spherical surface 22, which is not necessarily located in the same x-y plane as points P0 and P1. As such, Applicant submits that axes O-P0 and O-P1 are not necessarily parallel to the display, and therefore it *cannot be concluded*, as alleged by the Examiner, that the two axes formed with these points are parallel to the display. Alternatively, if P0 and P1 are co-planar with center point O, then the 3D model is not “*reoriented*” as claimed, since the two axes would already be parallel to the plane of the display.

As such, Applicant submits that Ono does not teach or suggest each and every element of the claimed invention arranged *so as to perform as the claimed invention performs*.

In view of the foregoing, Applicant respectfully submits that for an obviousness rejection to stand, *each and every element of the claimed invention arranged to perform as the claimed invention performs must be taught or suggested by the prior art references*, and by failing to meet this burden, the Examiner has clearly improperly rejected the claims by demonstrating clear error based upon a legal or factual deficiency.

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In light of the forgoing, as well as remarks made in prior responses, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §103(a) fall wholly short of properly establishing a prima facie case of obviousness, and that the Examiner has clearly improperly rejected the claims by demonstrating clear error based upon a legal or factual deficiency. Accordingly, withdrawal of all rejections and notice of allowance of the claims is respectfully requested.

The Commissioner is hereby authorized to charge the two-month Extension of Time fee and the Notice of Appeal fee to Deposit Account No. 50-2513.

The Commissioner is hereby authorized to charge any additional fees that may be required for this submission, or credit any overpayment, to Deposit Account No. 50-2513.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above identified Deposit Account.

Respectfully submitted,

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